

BXB150 Series Single output

Total Power: 150 W
Input Voltage: 18 - 36 Vdc
36 - 75 Vdc
of Outputs: Single



Special Features

- Industry standard footprint
- MTBF >1.4 million hours (Bellcore 332)
- Input voltage to ETS300-132-2
- Adjustable output voltage
- No minimum load required
- Separate case ground pin
- 2:1 input range for battery powered applications
- Undervoltage lockout (UVLO)
- UL, VDE and CSA safety approvals
- Available RoHS compliant
- 2 year warranty

Safety

VDE0805/EN60950/IEC950

UL1950

CSA C22.2 No. 950

Electrical Specifications

Output

| | | |
|---------------------------------|----------------------------|---|
| Voltage adjustability: | | 60% to 110% |
| Setpoint accuracy: | | ±1.0% |
| Line regulation | Low line to high line | ±0.5% |
| Load regulation | Full load to min. load | ±0.10% |
| Minimum load | | 0 % |
| Overshoot | At turn on and turn-off | None |
| Undershoot | | None |
| Ripple and noise | 3.3 V and 5 V | 75 mV pk-pk, 20 mV rms |
| | 5 Hz - 20 MHz (see note 1) | 100 mV pk-pk, 30 mV rms |
| | 12V and 15 V | |
| Temperature coefficient | | ±0.01% / °C |
| Transient response (see note 2) | | ±2.0% max. deviation 170 µsrecovery to within ±1.0% |
| Remote sense | | 0.5 Vdc transmission line drop compensation |



| Input | | |
|--------------------------------------|--------------------|---|
| Input voltage range | 24 Vin nominal | 18 - 36 Vdc |
| | 48 Vin nominal | 36 - 75 Vdc |
| Input current | No load | 130 mA max. |
| | Remote OFF | 20 mA max. |
| Input current (max.) (See note 4) | 24 Vin | 9.0 A max. @ Io max. and Vin = 0 to 75 V |
| | 48 Vin | 6.5 A max. @ Io max. and Vin = 0 to 75 V |
| Input reflected ripple | (See note 6) | 5 mA pk-pk |
| Active low remote ON/OFF | (See note 7) | |
| Logic compatibility | | Open collector ref to -input |
| ON | | 1.2 Vdc max. |
| OFF | | Open circuit |
| Undervoltage lockout: | 24 Vin: power-up | 17 V |
| | 24 Vin: power-down | 16.3 V |
| | 48 Vin: power-up | 34 V |
| | 48 Vin: power-down | 32.5 V |
| Startup time (see note 8) | Power-up | 20 ms |
| | Remote ON/OFF | 20 ms |

| EMC Charateristics | | |
|----------------------------------|------------------|---------|
| Conducted emissions (see note 3) | Bellcore 1089 | Level A |
| | FCC part 15 | Level A |
| | EN55022, CISPR22 | Level A |

| General Specifications | | |
|--------------------------------------|---|---|
| Efficiency | | See table |
| Isolation voltage | Input/case | 1500 Vdc |
| | Input/output | 1500 Vdc |
| | Output/case | 1500 Vdc |
| Switching frequency | Fixed | 500 kHz typ. |
| Approvals and standards (see note 5) | | VDE0805, EN60950, IEC950 UL1950, CSa c22.2 No. 950 |
| Case material | Aluminum baseplate with plastic case | |
| Weight | | 110 g (3.88 oz) |
| MTBF | Bellcore 332 MIL-HDBK-217F @ 40 °C, 100% FL | 1,400,000 hours 580,000 hours min. |

Environmental Specifications

| | | |
|---------------------|----------------------|---------------------|
| Thermal performance | Operating case temp. | -40 °C to +100 °C |
| | Non-operating | -55 °C to +125 °C |
| Altitude | Operating | 10,000 feet max. |
| | Non-operating | 40,000 feet max. |
| Vibration | 5 - 500 Hz | 2.4 G rms (approx.) |

| Protection | | |
|---------------|---------------------------------------|--|
| Short-circuit | Continuous, automatic recovery | |
| Overvoltage | Non-latching | |
| Undervoltage | Non-latching | |
| Thermal | 110 °C baseplate, automataic recovery | |

| Telecom Specifications | |
|----------------------------|--------------|
| Central office interface A | ETS300-132-2 |

Ordering Information

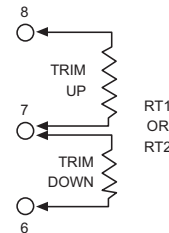
| Output Power (Max.) | Input Voltage | OVP | Output Voltage | Output Current (Min.) | Output Current (Max.) | Efficiency (Typ.) | Regulation | | Model Number |
|---------------------|---------------|----------|----------------|-----------------------|-----------------------|-------------------|------------|-------|-------------------|
| | | | | | | | Line | Load | |
| 100 W | 18 - 36 Vdc | 4.3 Vdc | 3.3 V | 0 A | 30 A | 77% | ±0.05% | ±0.1% | BXB150-24S3V3FLTJ |
| 100 W | 36 - 75 Vdc | 4.3 Vdc | 3.3 V | 0 A | 30 A | 79% | ±0.05% | ±0.1% | BXB150-48S3V3FLTJ |
| 150 W | 36 - 75 Vdc | 6.5 Vdc | 5 V | 0 A | 30 A | 84% | ±0.05% | ±0.1% | BXB150-48S05FLTJ |
| 150 W | 36 - 75 Vdc | 14.5 Vdc | 12 V | 0 A | 12.5 A | 84% | ±0.05% | ±0.1% | BXB150-48S12FLTJ |
| 150 W | 36 - 75 Vdc | 17.5 Vdc | 15 V | 0 A | 10 A | 88% | ±0.05% | ±0.1% | BXB150-48S15FLTJ |

Notes

- 1 Measured with 10 μ F tantalum capacitor and 1 μ F ceramic capacitor across output.
- 2 $di/dt = 0.1 \text{ A}/1 \mu\text{s}$, $V_{in} = 48 \text{ Vdc}$, $T_c = 25 \text{ }^\circ\text{C}$, load change = 0.5 I_o max. to 0.75 I_o max. and 0.75 I_o max. to 0.5 I_o max.
- 3 Units should be characterised within systems. External components required.
- 4 Input fusing is recommended based on surge current and maximum input current.
- 5 This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
- 6 Simulated source impedance of 12 μH . 12 μH inductor in series with +Vin.
- 7 Active high remote ON/OFF option is available (standard product is active low), designate with the suffix 'FHT' e.g. **BXB150-48S05FHTJ**. Consult factory for further details and options.
- 8 Start-up into resistive load.
- 9 The 'J' suffix indicates that these parts are Pb-free (RoHS 6/6) compliant. TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
- 10 NOTICE: Some models do not support all options. Please contact your local sales representative or use the on-line model number search tool at <http://www.powerconversion.com> to find a suitable alternative.

External Output Trimming

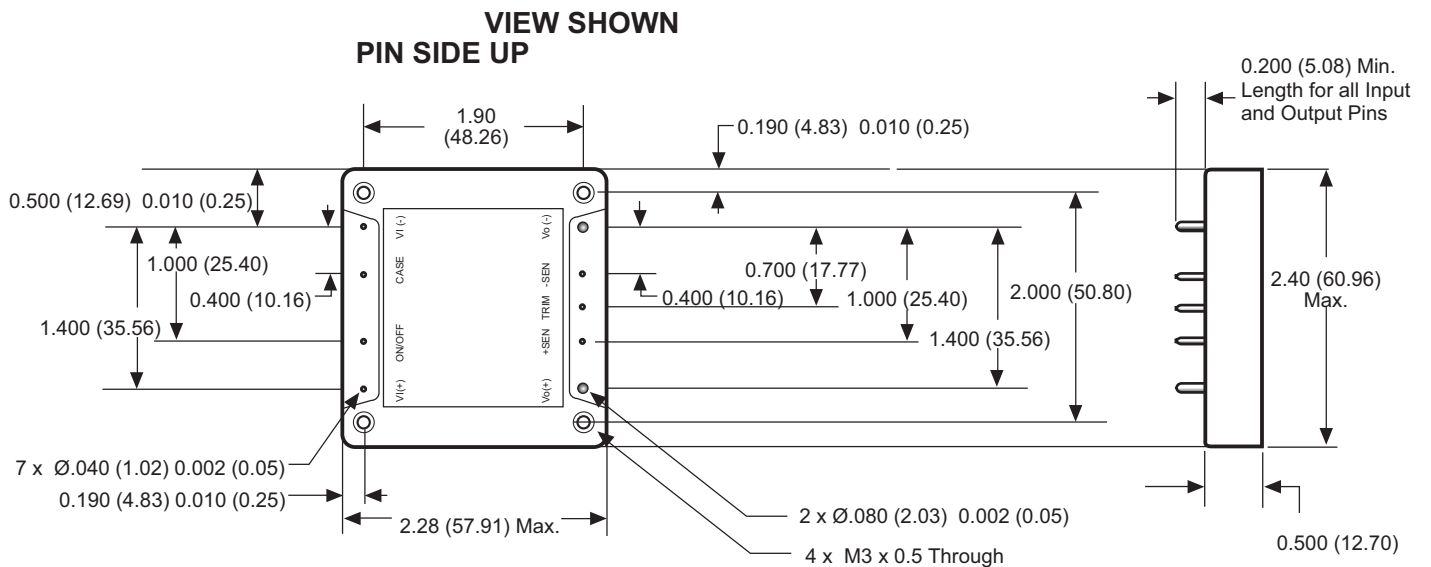
Output can be externally trimmed by using the method shown.



Pin connections

| Pin Number | Function |
|------------|---------------|
| 1 | +Vin |
| 2 | Remote ON/OFF |
| 3 | Case |
| 4 | -Vin |
| 5 | -Vout |
| 6 | -Sense |
| 7 | Trim |
| 8 | +Sense |
| 9 | +Vout |

Mechanical Drawing



ALL DIMENSIONS IN INCHES (mm)

Tolerance : x.xx 0.02in. (0.51mm)
x.xxx 0.010in. (0.254mm)

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